

IN THE CLAIMS

Please amend the claims as follows:

1-10. (Canceled)

11. (Original) A method including:

detecting, from a first electrode associated with a first heart chamber, a first fiducial point associated with a first depolarization of the first heart chamber;

detecting, from a second electrode associated with a second heart chamber, a second fiducial point associated with a second depolarization of the second heart chamber;

detecting, from a third electrode associated with the second heart chamber, a third fiducial point associated with the second depolarization of the second heart chamber, in which the second and third fiducial points are substantially similarly located on the second depolarization;

measuring a first time difference between the first and second fiducial points;

measuring a second time difference between the first and third fiducial points;

selecting the second electrode if the first time difference is longer than the second time difference, and selecting the third electrode if the second time difference is longer than the first time difference; and

delivering from a selected electrode a subsequent stimulation for evoking a contraction of the second heart chamber.

12. (Original) The method of claim 11, in which the second heart chamber is a ventricle, selected from a left ventricle and a right ventricle, and the second heart depolarization is a QRS complex associated with one contraction of the ventricle.

13. (Original) The method of claim 12, in which the second and third fiducial points are associated with a peak of an R-wave in the QRS complex.

14. (Original) The method of claim 11, in which the first heart chamber is a different ventricle from that of the second heart chamber, the first heart depolarization is a QRS complex associated with the first heart chamber, and the first fiducial point is associated with the first heart depolarization.

15. (Original) The method of claim 11, in which the first heart chamber is an atrium, selected from a right atrium and a left atrium, the first heart depolarization is a P-wave associated with a contraction of the atrium, and the first fiducial point is associated with the first heart depolarization.

16. (Original) The method of claim 11, further including disposing the second electrode at one of a base, midregion, and apex of one of a free wall and an anterior wall of a ventricle, and disposing the third electrode at a different one of the base, midregion, and apex of the one of the free wall and the anterior wall of the same ventricle.

17. (Original) The method of claim 11, in which selecting includes selecting the second electrode if, over a plurality of cardiac cycles, the first time difference is statistically longer than the second time difference, and selecting the third electrode if, over the plurality of cardiac cycles, the second time difference is statistically longer than the first time difference.

18. (Original) The method of claim 17, in which selecting further includes selecting one of the second and third electrodes located closer to a heart apex if the first and second time differences are statistically substantially equal.

19. (Original) The method of claim 11, further including repeating the steps of claim 11 after a plurality of cardiac cycles.

20. (Original) The method of claim 11, in which selecting further includes selecting one of the second and third electrodes located closer to a heart apex if the first and second time differences are substantially equal.

21. (Original) The method of claim 11, in which selecting further includes selecting the second electrode if the first time difference is longer than the second time difference by a threshold time, and selecting the third electrode if the second time difference is longer than the first time difference by the threshold time.

22-40. (Canceled)

41. (Original) A system including:

a first electrode configured to be associated with a first heart chamber;
second and third electrodes, both configured to be associated with a second heart chamber;
a sensing circuit, coupled to the first, second, and third electrodes, the sensing circuit detecting heart depolarizations from the first and second chambers;
a timer, coupled to the sensing circuit, the timer measuring a first time interval between a first depolarization received at the first electrode and a subsequent second depolarization received at the second electrode during the same cardiac cycle, and measuring a second time interval between the first depolarization received at the first electrode and the subsequent second depolarization received at the third electrode during the same cardiac cycle;

a therapy circuit delivering stimulations for evoking heart contractions from one of the second and third electrodes; and

a controller, coupled to the timer, the controller selecting the second electrode if the first time interval is longer than the second time interval, and selecting the third electrode if the second time interval is longer than the first time interval, the controller coupling the therapy circuit to the selected one of the second and third electrodes for delivering the stimulations.

42. (Original) The system of claim 41, in which the second and third electrodes are configured to be associated with a ventricle selected from a group consisting of a left ventricle and a right ventricle.

43. (Original) The system of claim 42, in which the first electrode is configured to be associated with the first heart chamber, which is selected from the group consisting of a ventricle different from the ventricle associated with the second and third electrodes, a right atrium, and a left atrium.

44. (Original) The system of claim 41, in which the timer provides, over a plurality of cardiac cycles, a plurality of first and second time intervals, and the controller computes a first statistic associated with the plurality of first time intervals and a second statistic associated with the plurality of second time intervals, and the controller selects one of the second and third electrodes based on a comparison between the first and second statistics, and the controller couples the therapy circuit to the selected one of the second and third electrodes for delivering the stimulations.

45. (Original) The system of claim 44, in which the controller selects the second electrode if the first time interval is statistically longer than the second time interval, and selects the third electrode if the second time interval is statistically longer than the first time interval.

46. (Original) The system of claim 45, in which the controller selects one of the first and second electrodes that is located closer to a heart apex if the first and second time intervals are statistically substantially equal.

47. (Original) The system of claim 41, in which the controller selects the second electrode if the first time interval is longer than the second time interval by a time threshold, and selects the third electrode if the second time interval is longer than the first time interval by the threshold, and otherwise selects one of the first and second electrodes located closer to a heart apex.

48. (Original) The system of claim 41, in which after the therapy circuit delivers stimulations from the selected one of the second and third electrodes over a plurality of cardiac cycles, the timer again computes first and second time intervals, the controller again selects one of the second and third electrodes for then coupling the therapy circuit to the selected one of the second and third electrodes for delivering the stimulations.

49. (Original) The system of claim 41, further including a remote programmer communicatively coupled to the controller, the programmer capable of receiving from the controller an indication of which of the second and third electrodes is selected for delivering the stimulations.

50-86. (Cancelled)

87. (New) An apparatus including:

means for detecting, from a first electrode associated with a first heart chamber, a first fiducial point associated with a first depolarization of the first heart chamber;

means for detecting, from a second electrode associated with a second heart chamber, a second fiducial point associated with a second depolarization of the second heart chamber;

means for detecting, from a third electrode associated with the second heart chamber, a third fiducial point associated with the second depolarization of the second heart chamber, in which the second and third fiducial points are substantially similarly located on the second depolarization;

means for measuring a first time difference between the first and second fiducial points;

means for measuring a second time difference between the first and third fiducial points;

means for selecting the second electrode if the first time difference is longer than the second time difference, and selecting the third electrode if the second time difference is longer than the first time difference; and

means for delivering from a selected electrode a subsequent stimulation for evoking a contraction of the second heart chamber.

88. (New) The apparatus of claim 87, in which the second heart chamber is a ventricle, selected from a left ventricle and a right ventricle, and the second heart depolarization is a QRS complex associated with one contraction of the ventricle.

89. (New) The apparatus of claim 88, in which the second and third fiducial points are associated with a peak of an R-wave in the QRS complex.

90. (New) The apparatus of claim 87, in which the first heart chamber is a different ventricle from that of the second heart chamber, the first heart depolarization is a QRS complex associated with the first heart chamber, and the first fiducial point is associated with the first heart depolarization.

91. (New) The apparatus of claim 87, in which the first heart chamber is an atrium, selected from a right atrium and a left atrium, the first heart depolarization is a P-wave associated with a contraction of the atrium, and the first fiducial point is associated with the first heart depolarization.